The Water Utility Enterprise

Final - March 1976

Santa Clara Valley Water District

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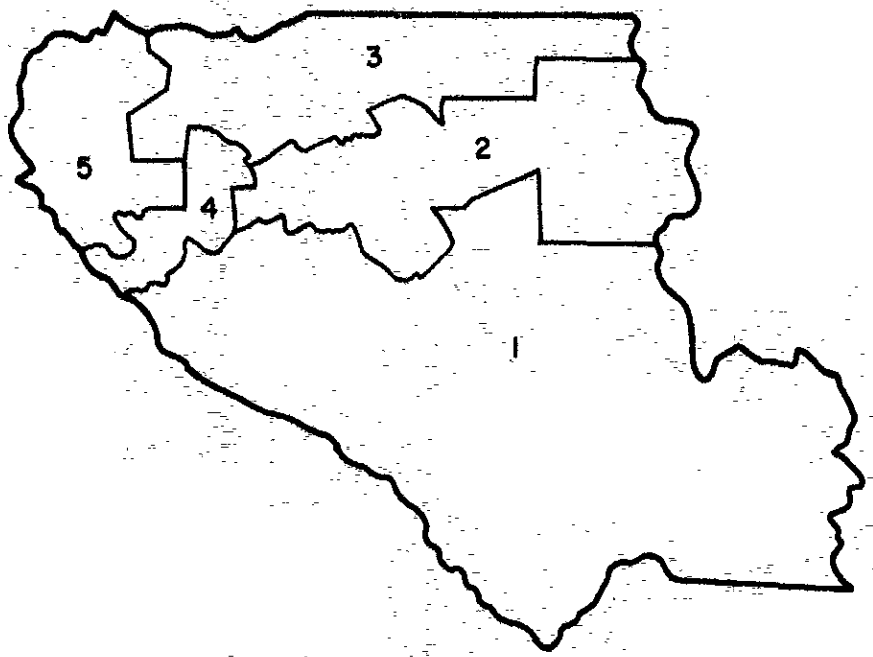

DIRECTORIAL DISTRICTS

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DISTRICT BOARD OF DIRECTORS

Joe Chiri	District 1	James J. Lenihan, Chairman	District 5
Patrick T. Ferraro	District 2	Courtland M. Rush, Vice Chairman	At Large
Robert T. Sapp	District 3	Edmund A. Mirassou	At Large
Maurice E. Dullea	District 4		

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Santa Clara Valley Water District

5750 ALMADEN EXPRESSWAY
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Water is one of the most important resources we have. It affects the very basic elements of our life-styles. Studies have shown that by the end of this decade our present water supplies will not be adequate to maintain the quality of life we presently enjoy in the Santa Clara Valley. Faced with a potential shortage, the District is currently involved in securing an additional source of water from the San Felipe Project. Plans are also underway to begin a water conservation education program to develop a public awareness for water in hopes of reducing wasteful use of this valuable resource.

As described in this report, the capital construction program required to provide water to an increasing population, and the increased costs of operating the District's Water Utility Enterprise will require increases in water rates beginning in fiscal year 1976-77.

The basic user water rates which are recommended for the next fiscal year are $34 per acre-foot for municipal and industrial water, and $8.50 per acre-foot for agricultural water. Further, it is recommended that the treated water surcharge rate be set at $41 per acre-foot. These new rates will apply in Zones W-2, W-3.1, W-3.2, W-3.3, and W-3.5. It is anticipated that these rates will remain in effect for the next 5 years.

John T. O'Halloran
General Manager

AN AFFIRMATIVE ACTION EMPLOYER

This is the fifth annual report on the status of the Santa Clara Valley Water District's Water Utility Enterprise. It has been prepared in accordance with Section 26.5 of the District Act. The purpose of this report is to provide current information on the following items:

- Present and future Water Requirements of Santa Clara County.
- Present and future Water Supply available to meet those requirements.
- Future Capital Improvement needs.
- Present financial condition of the Water Utility Enterprise.
- Future financial needs of the Water Utility Enterprise including expenditures and a means of financing them.
- A detailed financial analysis for next fiscal year.

The District Act also requires that this report contain:

- A recommendation as to whether or not water charges should be increased in any Zone or Zones for the next fiscal year.

"THE DISTRICT WAS FORMED . . .

The District was formed to provide the people of Santa Clara County with an adequate supply of water. To achieve this end, it has undertaken many activities to meet the following objectives:

- To manage the groundwater basins effectively and in an environmentally sound manner.
- To conserve local supplies of water through effective operation of reservoirs and percolation ponds.
- To plan for alternative supplemental water supplies.
- To preserve and protect watersheds.
- To adopt and administer an equitable, fair pricing policy.
- To set water rates and tax rates which will provide a balanced cash flow while maintaining a reasonable, safe operating reserve.
- To perform all activities in an efficient, effective manner.

WATER USE . . .

Water use in Santa Clara County is categorized as either agricultural or municipal and industrial. In each category, water is further classified with regard to the type of water delivered, namely, groundwater, local treated water, imported treated water (Hetch Hetchy), and raw surface water. Water use has been recorded in the North County since 1964 and is summarized in the table to the right for the period 1964-75.

Projections of future water needs in North Santa Clara County indicate an increase of about 4800 acre-feet per year through 1995, when the increases will begin to gradually taper off. The estimated total demand is expected to reach 420,000 acre-feet per year in 2020 as the municipal and industrial requirements continue to increase and the agricultural use of both groundwater and surface water decreases.

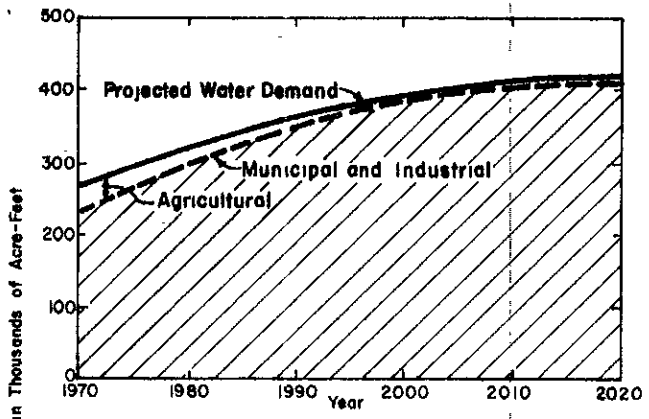
Water use in South Santa Clara County, the area south of Metcalf Road, has been primarily agricultural and, until recently, has been met by available local supplies, mainly from groundwater pumping. Since a formalized metering program has not yet been established in the South County, all information regarding water use in the area has been approximated from groundwater basin studies.

Future water needs in South Santa Clara County are projected to increase to about 125,000 acre-feet per year by 2020. It is anticipated that municipal and undustrial water requirements will continue to increase through this period and that agricultural requirements will begin to decrease commencing in 1990.

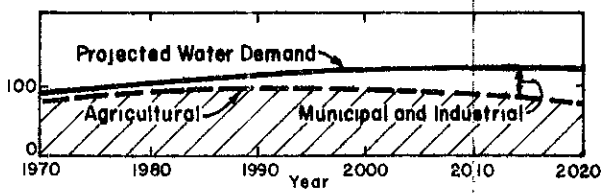
RECORDED NORTH SANTA CLARA COUNTY WATER USE[1]

	Municipal and Industrial Water Use					Agricultural Water Use			
Fiscal Year	Ground-Water	Treatment Plant Deliveries	Hetch-Hetchy Aqueduct	Other[2] Surface Water	Total Municipal and Industrial Use	Ground-Water	Surface Water	Total Agricultural Use	Total Water Use
1964-65	119,618	--	29,536	12,991	162,145	37,935	5,593	43,528	205,673
1965-66	130,786	--	33,572	12,434	176,792	38,463	11,597	50,060	226,852
1966-67	127,550	--	35,784	12,795	176,129	28,863	3,447	32,310	208,439
1967-68	138,285	7,854	39,902	13,863	199,904	35,470	9,115	44,585	244,489
1968-69	135,058	11,208	41,675	12,881	200,822	28,501	8,305	36,806	237,628
1969-70	125,099	39,157	48,349	16,647	229,252	29,312	4,889	34,201	263,453
1970-71	124,254	44,452	45,207	14,035	227,948	23,691	4,428	28,119	256,067
1971-72	142,180	48,837	49,877	10,214	251,108	24,018	4,796	28,814	279,922
1972-73	137,796	44,992	48,890	16,167	247,845	17,458	4,247	21,705	269,550
1973-74	128,997	45,478	52,187	22,168	248,830	15,864	3,039	18,903	267,733
1974-75	120,400	67,400	53,400	20,000	261,200	16,900	3,500	20,400	281,600

1/ All values are expressed in acre-feet. One acre-foot equals 326.000 gallons.
2/ Consists of water stored and treated by San Jose Water Works and untreated water delivered by District.



NORTH SANTA CLARA COUNTY



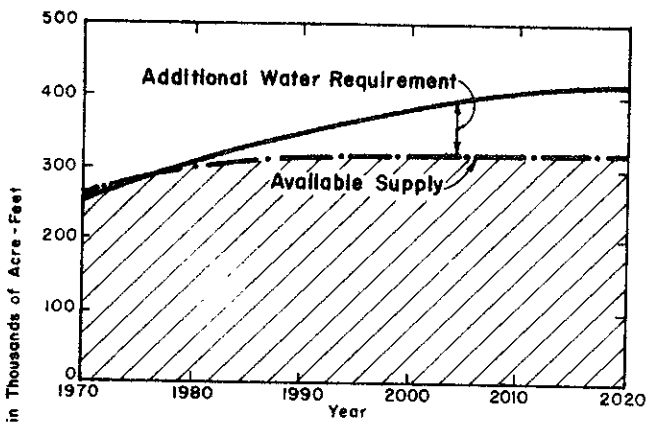
SOUTH SANTA CLARA COUNTY

HISTORICAL WATER SUPPLIES IN NORTH SANTA CLARA COUNTY

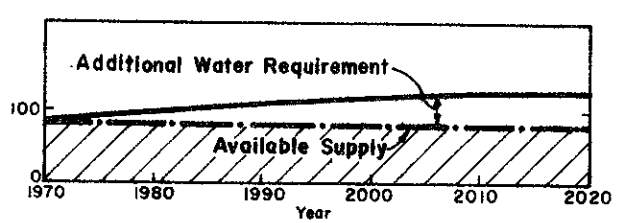
Fiscal Year	Locally 1/ Conserved Water	Hetch Hetchy Aqueduct Deliveries	South Bay Aqueduct Deliveries	Net 2/ Supply
1964-65	167,342	29,536	495	197,373
1965-66	68,127	33,572	23,353	125,052
1966-67	343,989	35,784	31,766	411,539
1967-68	191,887	39,902	63,000	294,789
1968-69	180,892	41,675	57,661	280,228
1969-70	106,471	47,203	77,234	230,908
1970-71	97,232	45,228	88,488	230,948
1971-72	140,509	49,744	92,150	282,403
1972-73	250,576	48,890	92,584	392,050
1973-74	199,081	52,187	86,565	337,833
1974-75	133,656	53,400	104,000	291,056

1/ Water conserved in surface reservoirs and groundwater basin. the average annual yield under present conditions is 165,000 acre-feet.

2 Net supply excludes all water losses.



NORTH SANTA CLARA COUNTY



SOUTH SANTA CLARA COUNTY

. . . AND WATER SUPPLY

Present water supplies in North Santa County consist of natural groundwater, locally conserved water, and water imported from the Hetch Hetchy and South Bay Aqueducts. The supplies that have been available in North Santa Clara County are listed in the table to the left for the period 1964-75.

The annual supply of water in North Santa Clara County is projected to increase to an average annual amount of 322,000 acre-feet by 2020. This increase will be a result of an additional 12,000 acre-feet per year from the South Bay Aqueduct and 14,000 acre-feet per year from the Hetch Hetchy Aqueduct.

In South Santa Clara County, the present water sources are naturally recharged groundwater and water captured in surface reservoirs. These sources supply about 79,000 acre-feet of water in an average rainfall year. Local water supply in South County is not expected to increase.

Under average conditions, water needs are expected to exceed present countywide supplies by 1978-79. From that time until additional water supplies are made available, more water will be taken out of the water pool than added. However, it will be necessary for the groundwater basins in the County to function in a water deficit condition for only a few years. The District Board of Directors has, after considering several sources of supplemental water, selected the San Felipe Project as the best alternative to serve the County's future water needs.

IN-COUNTY WATER DISTRIBUTION SYSTEM . . .

To continue providing an adequate supply of water that will meet the needs of the County, the District must maintain, improve, and expand the present In-County Water Distribution System.

A study of the System requirements was conducted and results published in a recent report entitled: Master Plan, Expansion of In-County Distribution System, December 1975. This report outlines the capital improvement needs of the District's Water Utility Enterprise through the year 2000 based on supplemental water supplies from the San Felipe Project. New facilities are proposed in both north and south Santa Clara County to distribute imported water, expand groundwater recharge activities, and extend treated water service to areas of the County where groundwater is not adequate.

A capital construction program of major in-county facilities required to deliver water from the San Felipe Project and to expand deliveries from the South Bay Aqueduct is shown in the table to the right. The table includes estimated costs of planning, design and construction of the facilities proposed to be constructed through 1981-82. The table also identifies the expected source of revenue to finance each facility.

The map on the following page locates the facilities outlined in the capital construction program as well as the existing in-county system and those facilities proposed for construction after 1981-82.

WATER UTILITY ENTERPRISE
PROPOSED CAPITAL CONSTRUCTION PROGRAM[1/]
(ALL VALUES IN $1000)

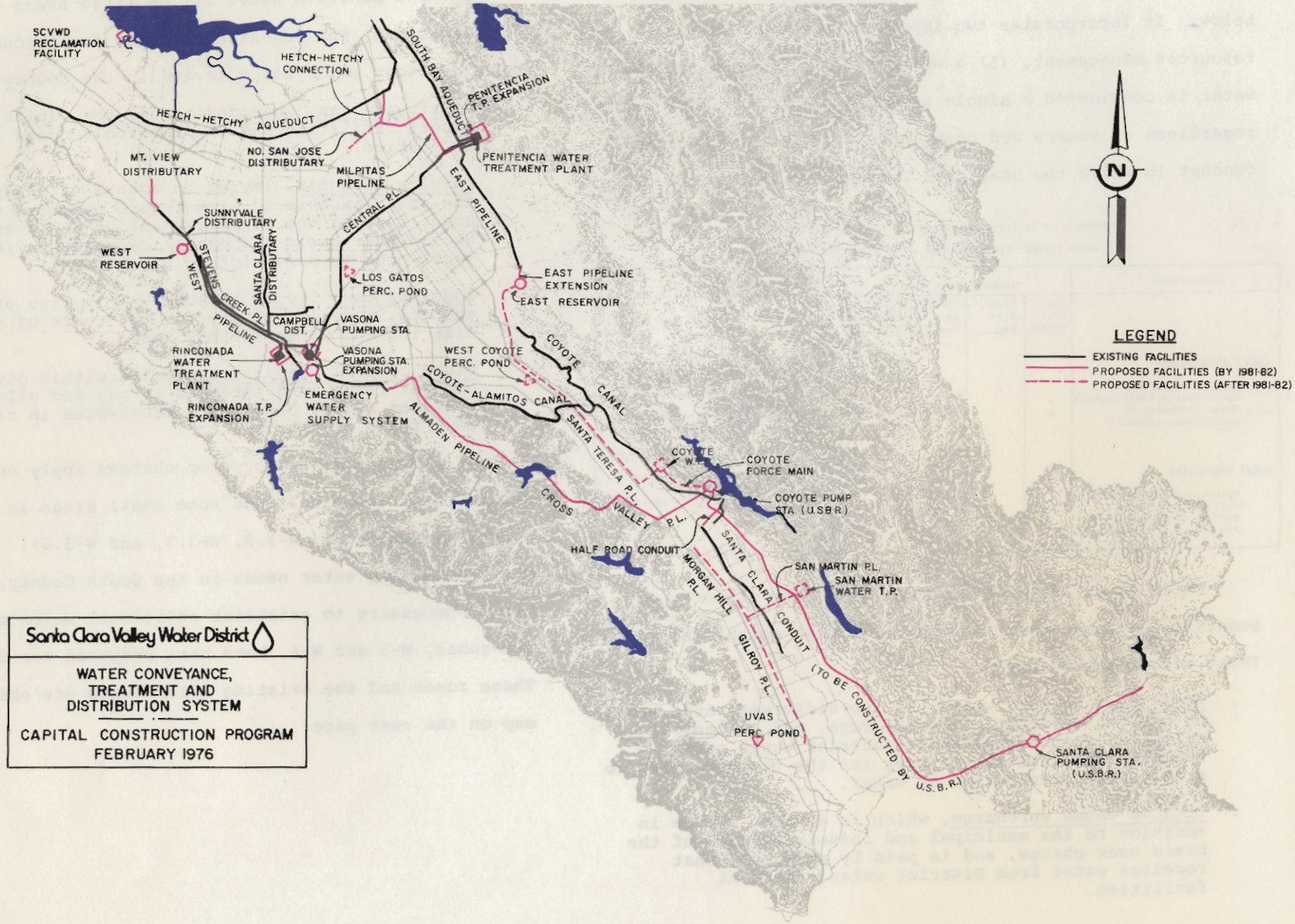
Project	Type of Financing[2/]	Capital Cost[3] 75-76	76-77	77-78	78-79	79-80	80-81	81-82
Source of Supply								
SCVWD Reclamation Facility (Palo Alto)[4/]	Cash Grant	295 2068	450 3147					
Calero Outlet Enlargement	Bond					300	467	521
Raw Water T&D								
Emergency Water Supply - Vasona Pump Station	Cash	950						
Half Road Conduit (Madrone Perc. System)	Cash	110						
Cross Valley Pipeline	Bond				3061	3514	3865	4633
Almaden Valley Pipeline Phase II	Bond				2662	3221	3543	3956
Uvas Percolation Pond	Bond			167			242	1476
West Coyote Perc. Pond	Bond			390				216
Los Gatos Perc. Pond	Bond			592				
Water Treatment								
Penitencia Treatment Plant Expansion (10 MGD)	Bond					659	2319	
Rinconada Treatment Plant Expansion (20 MGD)	Bond						757	2976
Treated Water T&D								
East Reservoir (20 MGD)	Cash	260	2615	355				
East Pipeline Extension	Cash	90	930	125				
West Reservoir	Cash Bond		407 -0-	-0- 1392				
Milpitas Pipeline	Bond						483	1524
Mountain View Distributary	Bond						121	279
All Projects	Grant	2068	3147					
	Cash	1705	4402	480				
	Bond			2541	5723	7694	11797	15579
	Total	3773	7549	3021	5723	7694	11797	15579

1/ Assumed First San Felipe Project Water Delivery: July, 1982.

2/ "Cash" refers to monies received from Operating Revenues.
"Grant" refers to monies received from Federal and State funded grants.
"Bond" refers to monies received from sale of Revenue Bonds (bond election is proposed for second half of 1977).

3/ Costs escalated to year of construction.

4/ 12.5% of SCVWD Reclamation Facility Costs will be funded by District funds; and 87.5% of the facility costs will be covered by State and Federal grants.


SCVWD RECLAMATION FACILITY
HETCH-HETCHY CONNECTION
HETCH-HETCHY AQUEDUCT
SOUTH BAY AQUEDUCT
PENITENCIA T.P. EXPANSION
PENITENCIA WATER TREATMENT PLANT
MT. VIEW DISTRIBUTARY
NO. SAN JOSE DISTRIBUTARY
MILPITAS PIPELINE
CENTRAL P.L.
EAST PIPELINE
SUNNYVALE DISTRIBUTARY
WEST RESERVOIR
WEST STEVENS CREEK P.L.
SANTA CLARA DISTRIBUTARY
LOS GATOS PERC. POND
EAST PIPELINE EXTENSION
EAST RESERVOIR
CAMPBELL DIST.
VASONA PUMPING STA.
PIPELINE
RINCONADA WATER TREATMENT PLANT
VASONA PUMPING STA. EXPANSION
WEST COYOTE PERC. POND
COYOTE CANAL
COYOTE-ALAMITOS CANAL
RINCONADA T.P. EXPANSION
EMERGENCY WATER SUPPLY SYSTEM
ALMADEN PIPELINE
SANTA TERESA P.L.
CROSS VALLEY P.L.
COYOTE W.T.P.
COYOTE FORCE MAIN
COYOTE PUMP STA. (U.S.B.R.)
HALF ROAD CONDUIT
MORGAN HILL P.L.
SANTA CLARA CONDUIT (TO BE CONSTRUCTED BY U.S.B.R.)
SAN MARTIN P.L.
SAN MARTIN WATER T.P.
GILROY P.L.
UVAS PERC. POND
SANTA CLARA PUMPING STA. (U.S.B.R.)
N
LEGEND
EXISTING FACILITIES
PROPOSED FACILITIES (BY 1981-82)
PROPOSED FACILITIES (AFTER 1981-82)
Santa Clara Valley Water District
WATER CONVEYANCE, TREATMENT AND DISTRIBUTION SYSTEM
CAPITAL CONSTRUCTION PROGRAM
FEBRUARY 1976

THE PRICING POLICY . . .

The current pricing policy is outlined in the table below. It incorporates two important concepts in water resources management, (1) a water pooling concept, in which water is considered a single commodity with a uniform value regardless of source and cost, and (2) a water management concept in which the user pays for the benefits he receives.

SUMMARY OF EXPENDITURES APPLIED TO SOURCES OF REVENUE
UNDER CURRENT DISTRICT WATER UTILITY PRICING POLICY

EXPENDITURES	SOURCES OF REVENUE				NOTES
	Basic User Charge	County-Wide Tax	Service Area Tax	Flood Control Taxes	
Import Facilities					1) Includes capital payments for South Bay Aqueduct, San Felipe Project (Future), and Tax Rebate for Hetch Hetchy water users.
Capital Facilities 1)		x			2) South Bay Aqueduct and San Felipe Project (Future) Imported Water Charges.
Operations and Maintenance	x				3) Includes Delta Water Charge and Variable O&M costs only.
Water Purchases 2)	x				4) Limited to allocated cost of excess capacity.
Basin Replenishment 3)			x		5) Reservoirs and certain percolation facilities.
Local Facilities					6) Reservoirs.
Operations and Maintenance	x				
Capital Improvements	x		x 4)		
Recreation Allocation 5)		x			
Flood Control Allocation 6)				x	

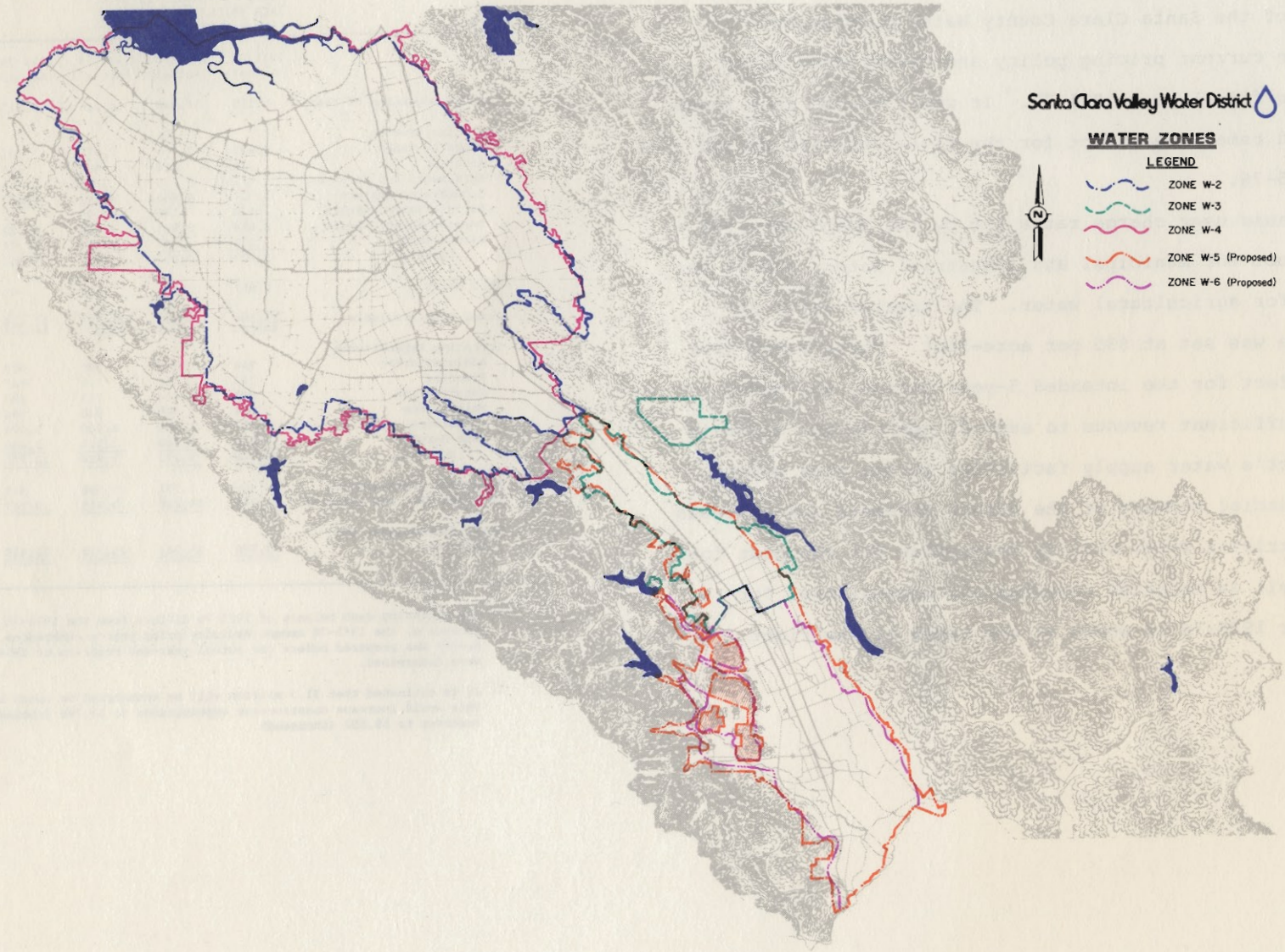
Where it is possible to charge the user directly for benefits received, water charges have been established. These water charges are:

- Basic user charge, which has two different rates based on use, an agricultural water rate, and a nonagricultural or municipal and industrial water rate. Revenue from this charge pays for the costs related to supply and distribution of water.
- Treated water surcharge, which is a water charge in addition to the municipal and industrial rate of the basic user charge, and is paid by an agency that receives water from District water treatment facilities.

Several benefits serve all or large areas of the County. In these cases, the benefits are paid for through taxes. There are four major taxes levied in the County:

- Countywide tax, intended to pay the capital cost of import facilities and the reservoir costs allocated to recreation.
- Service area tax, levied in Zone W-4, intended to pay the costs associated with future benefits to a specific zone, such as the replenishment of the overdrafted groundwater basin and excess capacity built into water facilities to serve future water needs.
- Zone W-3 tax, levied in Zone W-3 in lieu of basic water charges, intended to pay for the costs of supplying and distributing water in this zone.
- Flood control zone taxes, levied within given flood control zones, and intended to pay for allocated benefits provided by the District's reservoirs in reducing the peak flows of floods.

At the present time, water charges apply only in the North County (Zone W-2) and some small areas in the South County (Zones W-3.1, W-3.2, W-3.3, and W-3.5). In order to meet increasing water needs in the South County, it will become necessary to establish additional water charge zones. Two zones, W-5 and W-6, have been proposed for South County. These zones and the existing water zones are shown on the map on the next page.


Santa Clara Valley Water District
WATER ZONES
LEGEND
ZONE W-2
ZONE W-3
ZONE W-4
ZONE W-5 (Proposed)
ZONE W-6 (Proposed)
N

FINANCIAL SUMMARY . . .

In 1971 the District Board of Directors, upon recommendation of the Santa Clara County Water Commission, adopted the current pricing policy and established water charges for fiscal year 1971-72. It was intended that those rates would remain in effect for the five-year rate period ending 1975-76.

The basic user charge rates set by the Board were $30 per acre-foot for municipal and industrial water, and $8 per acre-foot for agricultural water. The treated water surcharge rate was set at $35 per acre-foot. These rates have been in effect for the intended 5-year period, and have provided sufficient revenue to expand, operate and maintain the District's water supply facilities during that period.

A financial summary of the actual revenues and expenses of the District's Water Utility Enterprise for the past four years as well as budgeted revenues and expenditures for fiscal year 1975-76 is shown in the table at the right.

ACTUAL AND ANTICIPATED REVENUE AND EXPENDITURES
1971-72 THROUGH 1975-76
(ALL VALUES IN $1,000's)

	1971-72 (Actual)	1972-73 (Actual)	1973-74 (Actual)	1974-75 (Actual)	1975-76 (Budgeted)
Cash at Beginning of Year	5,115	14,348	14,218	9,515	8,883 1/
Operating Revenue					
Property Taxes	2,425	2,765	2,979	3,301	3,734
Interest	324	814	883	844	497
Agreements and Advances	1	73	-0-	-0-	5
Groundwater Charges	4,010	4,465	4,243	3,870	4,016
Surface Water Charges	124	126	95	92	93
Treated Water Charges	2,614	2,565	2,703	3,722	3,911
Miscellaneous	131	85	214	74	35
Subtotal	9,629	10,893	11,117	11,903	12,291
Bond Sales	8,852	-0-	-0-	-0-	-0-
Total Cash Available	23,596	25,241	25,335	21,418	21,174
Operating Expenditures					
Administration	744	760	780	923	1,086
Planning	322	322	310	443	709
Construction	857	454	701	780	2,496 2/
Maintenance	734	969	936	984	1,391
Operations	4,102	4,599	4,590	5,078	5,727
Debt Service	2,489	2,168	2,505	2,498	2,511
Subtotal	9,248	9,272	9,824	10,706	13,922
Bond Fund Disbursements	-0-	1,751	5,996	945	-0-
Reserves (Yr. End Balance)	14,348	14,218	9,515	9,767	7,252 2/
Total Expenditures and Reserves	23,596	25,241	25,335	21,418	21,174

1/ The beginning cash balance of 1975-76 differs from the 1974-75 ending cash balance because a) the 1975-76 amount excludes prior year encumbrances, and b) the 1975-76 budget was prepared before the actual year-end reserves of 1974-75 were determined.

2/ It is estimated that $1.3 million will be encumbered or spent by the end of 1975-76. This would increase construction expenditures to $3,796 (thousand) and reduce the reserves to $5,552 (thousand).

A financial analysis of the Water Utility Enterprise can be separated into two main parts. The first part consists of funds required for annual operation of the enterprise and the second part consists of funds that make up the reserves or ending cash balance.

Annual operating funds for the current rate period, detailed in the table to the left, are summarized in the cash flow table below. The "Annual Surplus" listed in the table is added to the following year's operating reserve (one of the several reserve funds).

ANNUAL CASH FLOW OF OPERATING FUNDS
1971-72 THROUGH 1975-76
(ALL VALUES IN $1,000's)

	1971-72 (Actual)	1972-73 (Actual)	1973-74 (Actual)	1974-75 (Actual)	1975-76 (Budgeted)
Operating Revenue (+)	9,629	10,893	11,117	11,903	12,291
Disencumbrances (+)	369	601	38	48	-0-
Operating Expenditures (-)	9,248	9,271	9,824	10,706	13,922
Encumbrances (-)	728	182	267	672	-0-
Annual Surplus/Deficit	22	2,041	1,064	573	(-)1,631

The reserve funds in the Water Utility Enterprise are either earmarked for specific items or available for future expenditure. The item "Reserves" as used in the table on page 11 is the total of several reserve funds consisting of the operating, bond, construction, replacement and encumbrance reserves. They are outlined as follows:

- The operating reserve is the amount of funds remaining after all expenditure obligations have been met or allowed for. The operating reserve is made up of two sub-reserves: the Contingency Reserve, which is a budgeted amount set aside to meet any unforeseen financial needs that may arise, and the General Reserve which is the amount of funds available for future financial needs.

. . . FOR THE CURRENT RATE PERIOD

- The bond reserve is the balance of monies received from the sale of bonds and is available for expenditure on certain capital improvements. The repayment of the bond debt (debt service), rather than the initial capital expenditure, enters the annual cash flow.
- The construction reserve contains funds set aside to pay for capital construction costs of facilities that are planned in the near future but which have not been budgeted for. Monies in this reserve may have originated as either bond funds or operating funds.
- The replacement reserve is a fund set up for replacement of equipment that has a predictable usefulness. The funds deposited in this reserve, rather than the actual disbursement amount, are a part of the annual cash flow.
- The encumbrance reserve is the amount of money that has been set aside to meet authorized contractual agreements that have been entered into.

The annual balance of each of these reserve funds for the current five-year rate period is shown in the following summary.

DETAIL OF YEAR-END RESERVES
1971-72 THROUGH 1975-76
(ALL VALUES IN $1,000's)

	1971-72 (Actual)	1972-73 (Actual)	1973-74 (Actual)	1974-75 (Actual)	1975-76 (Budgeted)
Operating Reserve					
General	3,205	3,542	3,789	4,492	409
Contingency	195	1,899	1,974	864	1,000
Subtotal	3,400	5,441	5,763	5,356	1,409
Bond Reserve	9.823	2,100	2,076	1,131	-0-
Construction Reserve					
Operating Funds	-0-	-0-	-0-	1,734	3,869
Bond Funds	-0-	-0-	-0-	-0-	1,131
Subtotal	-0-	-0-	-0-	1,734	5,000[1]
Replacement Reserve	397	524	664	805	843
Encumbrance Reserve	728	6,153	1,012	741	-0-
Total Reserves	14,348	14,218	9,515	9,767	7,252

[1] It is estimated that approximately $1.3 million of the $5.0 million construction reserve funds will be spend or encumbered by the end of fiscal year 1975-76.

FINANCIAL PROJECTIONS . . .

Expenditures for the next five-year rate period are based on operating and maintaining the existing system and constructing additional facilities as outlined in the construction program on page 7. Cost projections assumed an inflation rate of 7-1/2% per year for operation and maintenance expenditures, and 10% per year for construction costs.

Revenues for the next rate period are based on maintaining tax rates at their present level and increasing the water rates to a level that will meet the increased operating expenditures. Financing for major capital construction is assumed from revenue bonds. A bond election to authorize the sale of revenue bonds is planned for November 1977.

The financial picture as projected for the next rate period is shown in the table to the right.

PROJECTED REVENUE AND EXPENDITURES
1976-77 THROUGH 1980-81
(ALL VALUES IN $1,000's)

	1976-77	1977-78	1978-79	1979-80	1980-81
Cash at Beginning of Year	7,341 1/	3,657	19,130	14,467	7,437
Operating Revenue					
Property Taxes	4,087	4,423	4,781	5,167	5,584
Interest	372	771	1,136	741	531
Agreements and Advances	5	5	5	5	5
Groundwater Charges	4,295	4,565	4,835	5,105	5,375
Surface Water Charges	81	81	81	81	81
Treated Water Charges	4,839	4,928	5,017	5,105	5,194
Miscellaneous	200	200	200	200	200
Subtotal	13,879	14,973	16,055	16,404	16,970
Bond Sales	-0-	16,000	-0-	-0-	12,000
Grants	3,130	522	-0-	-0-	-0-
Total Cash Available	24,350	35,152	35,185	30,871	36,407
Operating Expenditures					
Administration	1,134	1,220	1,292	1,372	1,458
Planning	672	703	735	791	883
Construction	905	643	689	741	797
Maintenance	1,648	1,684	1,781	2,025	2,154
Operations	6,284	6,249	6,646	6,954	7,258
Debt Service	2,501	2,502	3,852	3,857	3,855
Subtotal	13,144	13,001	14,995	15,740	16,355
Capital Expenditures 2/	7,549	3,021	5,723	7,694	11,797
Reserves (Yr. End Balance)	3,657	19,130	14,467	7,437	8,255
Total Expenditures and Reserves	24,350	35,152	35,185	30,871	36,407

1/ Beginning cash for 1976-77 is based on projections of actual revenues and expenditures for 1975-76.

2/ See page 7 for individual project costs.

The water rates for the next rate period which would meet projected expenditures and the corresponding water use projections are shown in the following table.

PROJECTED WATER CHARGE RATES
AND WATER USE
1976-77 THROUGH 1980-81

	1976-77	1977-78	1978-79	1979-80	1980-81
WATER CHARGE RATES ($/ACRE-FOOT)					
Basic User Charge					
Municipal & Industrial Water	34.00	34.00	34.00	34.00	34.00
Agricultural Water	8.50	8.50	8.50	8.50	8.50
Treated Water Surcharge	41.00	41.00	41.00	41.00	41.00
WATER USE (1,000 ACRE-FEET)					
Groundwater					
Municipal & Industrial Water	122	130	138	146	154
Agricultural Water	19	18	17	17	16
Surface Water					
Municipal & Industrial Water	1	1	1	1	1
Agricultural Water	2	2	2	2	2
Treated Water					
Municipal & Industrial Water)					
Contract	53	56	59	62	65
Non-Contract	19	16	13	10	7
Total Water Use.					
Municipal & Industrial Water	195	203	211	219	227
Agricultural Water	21	20	19	19	18
Total	216	223	230	238	245

The annual cash flow of operating funds and a detailed projection of the year-end reserves for the five-year period ending 1980-81 are shown below.

ANNUAL CASH FLOW OF OPERATING FUNDS
1976-77 THROUGH 1980-81
(ALL VALUES IN $1,000's)

	1976-77	1977-78	1978-79	1979-80	1980-81
Operating Revenue (+)	13,879	14,973	16,055	16,404	16,970
Operating Expenditures (-)	13,144	13,001	14,995	15,740	16,355
Required Contributions to Reserves:					
Contingency - General (-)	100	-0-	-0-	100	100
Contingency - Debt Service (-)[1/]	-0-	1,373	-0-	-0-	1,030
Replacement (-)	150	150	150	150	150
Annual Surplus/Deficit	485	449	910	414	-665

[1/] Revenue-bond financing requires a specific reserve equal to the debt service payment for the following year.

DETAIL OF YEAR-END RESERVES
1976-77 THROUGH 1980-81
(ALL VALUES IN $1,000's)

	1976-77	1977-78	1978-79	1979-80	1980-81
Operating Reserve					
General	1,077	2,048	2,958	3,372	2,707
Contingency	1,100	2,473	2,473	2,573	3,703
Subtotal	2,177	4,521	5,431	5,945	6,410
Bond Fund Reserve	-0-	7,736	42	-0-	-0-
Construction Reserve					
Operating Funds	480	-0-	-0-	-0-	-0-
Bond Funds	-0-	5,723	7,694	42	245
Subtotal	480	5,723	7,694	42	245
Replacement Reserve	1,000	1,150	1,300	1,450	1,600
Encumbrance Reserve	-0-	-0-	-0-	-0-	-0-
Total Reserves	3,657	19,130	14,467	7,437	8,255

A DETAILED FINANCIAL ANALYSIS . . .

The recommendation of rates for the ensuing fiscal year is partly based on a detailed financial analysis of the Water Utility Enterprise. The objective of this analysis is to determine if the revenue generated from current rates established in accordance with the pricing policy is sufficient to meet the expenditures allocated to that source of revenue for the upcoming year.

The summary of revenues and expenditures used in the financial analysis for 1976-77 is shown in the table on the next page. A double format has been used in this table to help identify the relationship that exists between the pricing policy categories and the generalized or budget categories. The allocation of finances according to the pricing policy is shown to the right, while the generalized summary allocation, similar to that used in the 5-year summary table, is shown to the left. Notice that, although the allocations vary between the two sets of values, the totals are the same.

Some specific points about the allocations of finances and results of the detailed financial analysis are as follows:

- Revenues are projected using existing tax rates and the recommended water rates.
- Expenditures are based on preliminary estimates of the requested budget for 1976-77.
- A portion of the treated water surcharge revenue has been applied to the service area tax to develop a total revenue equal to the total expenditure in that category. The remainder of the treated water surcharge revenue has been applied to the basic user charge.
- The allocation of reservoir costs is 7% to the flood control tax, 14.5% for recreation to the countywide tax, and 78.5% to the basic user charge.
- A portion of the debt service payments in the Water Treatment and Treated Water T&D Cost Centers is allocated to the service area tax according to the percentage of facility capacity that is unused.
- The Santa Clara Valley Water District Wastewater Reclamation Facility is anticipated to be completed in 1976-77. The capital expenditure within this year of $3.6 million is largely offset by grants of $3.1 million for a net cost to the District of approximately $0.5 million.
- The East Pipeline Extension and East Reservoir are scheduled for construction in 1976-77. Planning and design for the West Reservoir will begin next year. Approximately $4.0 million is expected to be spent on these facilities in 1976-77.
- The basic user revenue is $0.2 million greater than the O&M-type expenditures. Excess funds will be transferred to the General Reserve.
- The countywide tax will develop a surplus revenue of $0.82 million. This amount of surplus will be transferred to the general reserve.

In summary, the annual revenue generated from recommended water charge rates and current tax rates will meet the anticipated annual expenditures for 1976-77.

DETAILED FINANCIAL ANALYSIS FOR 1976-77
(ALL VALUES IN $1,000's)

Generalized (Budget) Allocation				Item	Pricing Policy Allocation				
Revenue from Water Charges									
Ground-water	Surface Water	Treated Water	Total	REVENUE SUMMARY	Basic User Charge	County-wide Tax	Service Area Tax	Flood Control Taxes	Total
				Basic User Charges					
160	28		188	Agricultural Water	188				188
4,135	53	2,448	6,636	Nonagricultural Water	6,636				6,636
		2,391	2,391	Treated Water Surcharge	2,220		171		2,391
4,295	81	4,839	9,215	Subtotal	9,044	-0-	171	-0-	9,215
Tax and Miscellaneous Revenue									
Taxes	Interest	Miscel-laneous	Total						
				Taxes					
3,182			3,182	Countywide		3,182			3,182
792			792	Service Area Tax (Zone W-4)			792		792
110			110	Zone W-3 Tax	110				110
3			3	CSCVWCD Tax	3				3
		40	40	Flood Control Taxes				40	40
	356		356	Interest	356				356
		3,135	3,135	Agreements and Advances (Grants = $3,130)	3,135				3,135
		160	160	Other	160				160
4,087	356	3,335	7,778	Subtotal	3,764	3,182	792	40	7,778
				Transfer of Reserve Funds					
			-1,002	General Reserve	-181	-821			-1,002
			4,419	Construction Reserve	3,629		790		4,419
			-150	Replacement Reserve	-150				-150
			3,267	Subtotal	3,298	-821	790	-0-	3,267
			20,260	TOTAL REVENUE AND FUNDS TRANSFERRED FROM RESERVES	16,106	2,361	1,753	40	20,260
Capital Construc-tion	General	Debt Service	Total	EXPENDITURE SUMMARY					
				Source of Supply Cost Center					
				Imported Water Costs					
	1,830		1,830	Capital Payments		1,830			1,830
	1,028		1,028	Operations and Maintenance	1,028				1,028
	726		726	Water Purchases-Consumptive Use	726				726
	406		406	Water Purchases-Basin Replenishment			406		406
	448		448	Hetch Hetchy Rebate		448			448
	537	38	575	Local Reservoir Costs	452	83		40	575
3,597			3,597	Capital Costs-SCVWD Reclamation Facility	3,597				3,597
	376		376	Other	376				376
3,597	5,351	38	8,986	Subtotal	6,179	2,361	406	40	8,986
	1,920	875	2,795	Raw Water T&D Cost Center	2,795				2,795
	1,784	885	2,669	Water Treatment Cost Center	2,439		230		2,669
				Treated Water T&D Cost Center					
	306	640	946	General	619		327		946
2,615			2,615	Capital Cost-East Reservoir	2,092		523		2,615
930			930	Capital Cost-East Pipeline Extension	744		186		930
407			407	Capital Cost-West Reservoir	326		81		407
3,952	306	640	4,898	Subtotal	3,781	-0-	1,117	-0-	4,898
	849	63	912	Administration and General Cost Center	912	-0-	-0-	-0-	912
7,549	10,210	2,501	20,260	TOTAL EXPENDITURES	16,106	2,361	1,753	40	20,260

During the next five years, water needs in Santa Clara County will begin to exceed current supplies. An additional source of water for the County is expected to be available from the San Felipe Project by July 1982. In order to make use of this additional water when delivery begins, the District plans on expanding its existing treatment, pipeline and groundwater recharge facilities.

Major components of the District's construction program during the next five years will be the Cross Valley Pipeline and the Almaden Valley Pipeline to convey water from the San Felipe Project for treatment and groundwater recharge; expansion of existing treatment plants and distribution system to provide service to the cities of Mountain View and Milpitas; and the purchase of lands for the development of off-stream groundwater recharge areas in the North and South County.

For the next fiscal year (1976-77), the District's major expenditures in the Water Utility Enterprise will be for the operation and maintenance of existing facilities, and the continuation of the District's present planning and construction programs. The planning program will consist primarily of wastewater reclamation studies, water quality studies and refinements of the water resources master plan. In the construction program, major expenditures will be for the SCVWD Reclamation Facility in Palo Alto, the East Reservoir, the East Pipeline extension, and the West Reservoir.

To meet the increasing costs of providing water in Santa Clara County, it is recommended that water charges in Zones W-2, W-3.1, W-3.2, W-3.3, and W-3.5 of the District be increased for the next fiscal year, 1976-77, as shown in the table below.

RECOMMENDED WATER CHARGES
FOR
FISCAL YEAR 1976-77[1/]

Basic User Water Charges	
Agricultural Water:	$ 8.50/Acre-Foot
Nonagricultural Water (M&I):	$34.00/Acre-Foot
Treated Water Surcharge:	$41.00/Acre-Foot

[1/] These water charge rates are intended to be in effect for the 5-year period through 1980-81.